

1 I claim:

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3 1. In combination, a garage door and window frame assembly, the combination comprising:

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5 a metal overhead garage door having front and rear exposed surfaces and at least one window

6 opening therein;

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8 a front window frame member formed in one piece of a synthetic, polymeric material and having a

9 periphery sized to circumscribe the window opening from the front exposed surface of the door;

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11 a rear window frame member also formed in one piece of a synthetic polymeric material and having

12 a periphery sized to circumscribe the window opening from the rear exposed surface of the door, the

13 front and rear window frame members having engagement elements located about the peripheries

14 thereof which snap together in mating fashion to thereby mount the frame members within the

15 window opening, the engagement elements also being disengageable with a hand tool to separate the

16 frame members and remove the members from the window opening.

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18 2. The combination of claim 1, wherein the front and rear window frame members are molded from

19 a suitable plastic and wherein the engagement elements are tabs provided on one respective frame

20 member for engaging aligned lips provided within engagement openings located on the other

21 respective frame member.

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23 3. The combination of claim 2, wherein tabs and lips are arranged in an alternating pattern on a rear

24 surface of the front window frame member for engaging matingly aligned tabs and lips provided on

25 a front surface of the rear frame member, respectively.

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27 4. The combination of claim 3, wherein the engagement openings provided on the respective front

28 and rear frame members form field goal-shaped openings.

5. The combination of claim 4, wherein the field goal-shaped openings each include reinforced top and bottom cross bar regions and reinforced side post regions.

6. The combination of claim 5, wherein the reinforced top and bottom cross bar regions and reinforced side post regions form outwardly extending protrusions from a reference plane of the periphery of the front frame member which strengthen the frame member peripheral walls, thereby providing a wind load capable/reversible snap fit for the frame members.

7. The combination of claim 3, wherein the rear frame member has openings provided therein in alignment with the engagement tabs, the openings providing access to the engagement tabs so that a hand tool can be inserted within the openings to disengage the tabs from the lips to allow the disassembly of the window frame members from within the opening in the garage door.

8. The combination of claim 1, further comprising:

a central opening provided within each of the window frame members;

a transparent pane having peripheral edges sized to be received within the central opening provided in the window frame members and supported therein.

9. The combination of claim 8, wherein a plurality of flexible hinges are provided at selected spaced circumferential locations about the periphery of the central opening of the back frame member, the flexible hinges serving to allow the insertion of a transparent pane within the window opening even with the front and back frame members in a previously assembled condition within the garage door.

10. The combination of claim 8, wherein a trim insert is also installed within the central opening provided within the window frame members in addition to the transparent pane.

11. A method of installing a window assembly within a metal garage door having front and rear exposed surfaces and at least one opening provided therein, the method comprising the steps of:

providing a front window frame member formed in one piece of a synthetic, polymeric material, the front window frame member having a central opening and having a periphery sized to circumscribe the window opening from the front exposed surface of the door;

providing a rear window frame member also formed in one piece of a synthetic polymeric material and having a central opening and a periphery sized to circumscribe the window opening from the rear exposed surface of the door;

providing snap-fit engagement elements about the peripheries of the front and rear window frame members which snap together in mating fashion;

installing the front window frame member within the garage door opening on the front exposed surface thereof;

locating a transparent pane within the central opening of the front window frame member;

installing the rear window frame member on the opposite, rear exposed surface of the door opening to thereby mount the frame members within the window opening with the transparent pane being sandwiched between:

pressing the inner and outer window frame members together in order to engage the snap-fit engagement elements.

12. The method of claim 11, wherein the snap-fit engagement elements are also disengagable with a hand tool to separate the frame members and remove the members from the window opening.

1       13. The method of claim 11, further comprising the steps of:

2                   3 using a hand tool to disengage the snap-fit engagement elements;

4                   5 separating the window frame members;

6                   7 removing the existing transparent pane from between the two window frame members;

8                   9 installing a new transparent pane between the two window frame members; and

10               11 again engaging the window frame members within the garage door opening.

12       13 14. The method of claim 11, wherein the front and rear window frame members are injection molded from a suitable plastic and wherein the engagement elements are tabs provided on one respective frame member for engaging aligned lips provided on the other respective frame member.

16       17 15. The method of claim 14, wherein tabs and lips are arranged in an alternating pattern on a rear surface of the front window frame member for engaging aligned tabs and lips provided on a front surface of the rear frame member.

20       21 16. The method of claim 15, wherein the rear frame member has openings provided therein in alignment with the engagement tabs, the openings providing access to the engagement tabs so that a hand tool can be inserted within the openings to disengage the tabs from the lips to allow the disassembly of the window frame members from within the opening in the garage door.

25       26 17. The method of claim 11, wherein a transparent pane is installed in the central opening of the window frame members and wherein the tabs provided on the respective front and rear window frame members bear against the peripheral edges of the transparent pane when the tabs are engaged with the aligned lips to further secure the pane within the window frame assembly.

1       18. The combination of claim 17, wherein a trim insert is also installed within the central opening  
2       provided within the window frame members in addition to the transparent pane.  
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